

Research Regarding the Use of IT Instruments in Financial Audit

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Abstract

Having in mind the signals from the financial auditing services market, at both national and international level, the author intended to find out which are the applications used by auditing firms in Romania and the strengths of these tools for each stage of the audit engagement, a key analysis in the context of adopting software solutions in the audit engagements.

The research was conducted through a questionnaire addressed in 2015 to the financial auditors in Romania and sought their response about the benefits of using a software tool in each stage of the audit engagement.

The result of the research revealed the tendency for users to use software tools also in the special audit assignments.

Keywords: audit engagement, software tools for audit, efficacy

JEL Classification: M40, M42, O33, I25

1. Introduction

The study aimed to analyze how the community of auditors in Romania absorbed and used highly developed computer applications which can be used for financial audit.

The approach is part of a series of research aiming the understanding of issues faced by experts in the field in this process precisely to receive scientific support from academia. This kind of support can start with adapting the curriculum from specialized universities and continue with courses and continuous training for accountants and auditors (Stanciu V, 2015).

It should be stressed that the study was performed through questions targeting each stage of the audit engagement, since it has been shown in previous studies that in order to ensure efficiency and efficacy in the different types of audits it is possible to appeal to CAAT's (Computer Assisted Audit Techniques), (Curtis & Payne, 2014), but also to use CAAT's in one or more stages of the engagement (Alali & Pan, 2011).

Our analysis took into account the budget factor i.e. it's influence for the use of CAAT's in any of the stages of the audit since previous studies showed the importance of this factor – namely in the choices of Big Four users in other countries (Curtis & Payne, 2014), alongside inclination towards risk and the intention to use CAAT's (Curtis and Payne, 2008).

The analyses was conducted with the support of Bucharest University of Economic Studies, The Faculty of Accounting and Management Information Systems and The Chamber of Financial Auditors of Romania, the latter publishing on its website the questionnaire on the use of audit software in Romania for completion.

Please note that interested persons may still reply to the survey as it remains opened for a subsequent final analysis.

2. Reference literature

The paper analyzes the evolution of information systems used in financial audit missions tracking factors which determines higher effectiveness of the engagement.

In an era when time of digital interaction has been doubled only in the last three years (2011-2013) as shown in recent studies from developed countries (France, UK, Germany and USA), the entire active

population goes through a process of transition from consumers of traditional technology to a population of digital natives, population thought to become majority since 2025 (Balaban R, 2015).

In this context the preparation of the new generation of audit professionals, but not only, involves interconnection between academia and professional (Ștefănescu & Tănase, 2014). Graduates wishing to practice financial audit must have theoretical and practical knowledge, organizational skills but also information technology user skills in order to comply with the professional environment requirements. This idea is supported also by Simkin M. G., Rose J. M. & Norman C. S. in the paper *Accounting Information Systems* which emphasizes the role of the five components that interact within an information system: hardware, software, data, people and procedures. (Simkin, Rose & Norman cited Caraiman, 2015)

A high degree of use for these applications could be a factor for increasing connectivity of financial audit professionals to the latest trends on CAAT's and the implications of their use in the context of the phenomenon of digitization. Also, the ACCA Report (Association of Chartered Certified Accountants) presents the top 10 technologies which auditors, ACCA and IMA members (Institute of Management Accountants) believe that they will influence the international audit market: Mobile Technology, Big Data, Artificial Intelligence and Robotics, cyber security, educational technologies, cloud, Payment Systems, virtual and augmented reality, delivery of digital services, social technologies (ACCA Report, 2014).

By asking the staff that uses software to attend various technical assistance actions, pilot audit missions supported with computer tools, can increase their adaptability to the changes occurred in traditional flows posed by the audit missions (Popa S., 2005).

We take two notions into account in our analysis: CAAT's as informatics tools used in the profession of financial audit in Romania and efficiency.

The emergence of the audit was due precisely to the need for improved efficiency and cost reduction after the economic crisis of 1929 in the Americas (Oprean, 2006) so that studies initiated by American researchers, but not only, assumes that technology in the new era may lead to increased efficiency and effectiveness and the reduction of some costs such as legal ones but also to diminishing the risk of fraud (Braun & Davis, 2003; Curtis *et al.*, 2009; Dowling & Leech, 2007; Bedard *et al.*, 2008 cited Curtis & Payne, 2014).

Audit software capacitates continuous audits where fraud and errors can be detected in real time (Braun & Davis, 2003 cited Alali & Pan, 2011).

In the banking field internal auditors are using audit software to investigate various cases under analysis and control (Alali & Pan, 2011).

Given that American audit legislation as well as the one adopted by European Union i.e. International Standards on Auditing (ISA) does not specify mandatory use of CAAT's in audit assignments, there had been relatively few research about their use and especially about voluntary use, which highlights our interest in the answers of CAAT's users among Romanian financial auditors.

The International Standards on Auditing mentioning the importance of CAAT's using by the auditor are ISA 315, ISA 330, ISA 330, redrafted standards referring to financial statements audit planning, identifying and assessing risks of significant distortion by understanding the entity and it's environment and to the auditor's response to the assessed risks (ACCA, 2015).

CAAT's may be used in any of the stages of the audit assignment to process various data by using interrogation techniques, calculation and sample selection, use of mathematical and financial analysis functions, checking internal control and data integrity, identifying entity risks, the assessment of those risks, control on accounting processing and other software tools used by the information system of the audited entity (Gheorghe M, 2006).

In some countries it was demonstrated that (Alali & Pan, 2011):

- Risk assessment procedures performed using CAAT's may be of use to the auditor for increased efficiency of the financial audit mission;
- Testing of internal controls used emphatically can determine increased costs of audit;

- Multivariate financial analysis, comparative automated calculations can increase audit efficiency;
- To increase the efficiency and effectiveness of audit a key factor is the continuous audit;
- Since the audit software incorporates statistical calculation facilities, especially those specific the trend analysis, an analysis where software may use information from online databases for comparison within the same industry, it can lead to a reduction in the professional judgment subjectivity in risk assessment procedures;
- There is a tendency for public companies to move towards continuous auditing;
- Using an ERP (Enterprise Resource Planning) can influence the auditor decision to use CAAT's in ERP assessment (Cordoş, 2010).

The above factors are determinants for the effectiveness of the audit mission, but also for using CAAT's in financial audit assignments. The study below aims to identify which software tools are being used by auditors from Romania, highlighting the strengths noted by them.

3. Research methodology

The method of investigation used in this study is qualitative, based on a questionnaire addressed to the auditors from both private and public sector.

The purpose of the analysis is to determine the usability of audit software in different stages of an engagement and whether the use of some software tools is present in every audit assignment and also in each stage of the audit mission. Also we wanted to see if there is an interest in finding new software and what are the strengths that users find important when deciding which software solution to use in their assignments.

Data collected	<ul style="list-style-type: none"> ● Questioning individual auditors from Romania regarding the software tools they use for audit missions
The sample size	<ul style="list-style-type: none"> ● From a total of 3484 individual auditors listed in the Electronic Individuals Public Registry published by The Chamber of Financial Auditors of Romania we received reply from approximate 0,6 % of them (19)
Research pattern	<ul style="list-style-type: none"> ● Analyzing responses in the context of specialty literature and previous studies

In analyzing the responses received so far it was taken into account the degree of homogeneity of the community. The analysis was performed after the first round of responses. We aim that after the end of the second round to come back with the analyzed results for the entire representative sample.

In the questionnaire there were questions that were not mandatory, thus for some questions the sum of the percentages calculated to be less than 100. The difference stands in those respondents with no answer to that question.

We used multiple response questions, checkboxes and dialogue boxes to fill in more detailed information.

4. Results

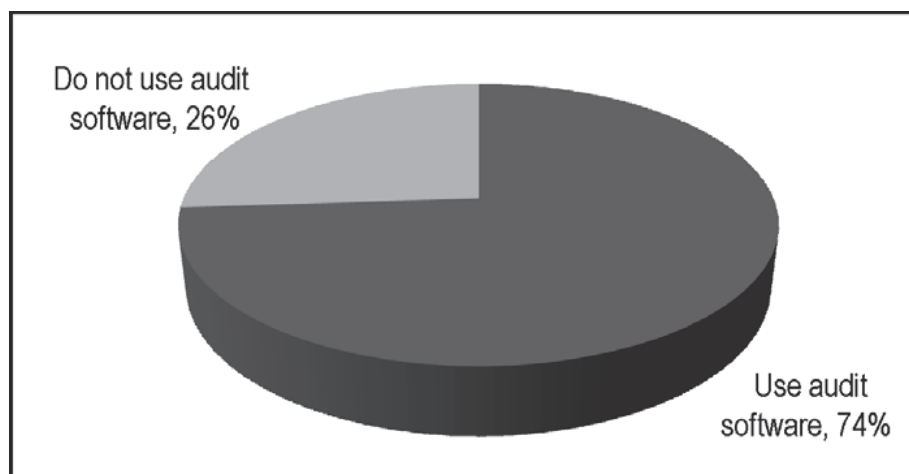
Among the respondents, about 11% are auditors from internationally organized companies (Big Four). They represent 1.25% from the total number of active financial

auditors – collaborators, employees, associates or managers of the four companies according to Electronic Public Register of Auditors - Individuals, published by the Chamber of Financial Auditors of Romania and accessed on October 1, 2015.

Also, 11% of respondents were auditors from nationally organized companies, about 16% were from companies organized in Bucharest-Ilfov area, 26% come from regionally representative companies and 37% are from companies which are representative at county level.

From the point of view of the position held by respondents in the audit office, the questionnaire was attended by auditors from all areas, i.e. interns, junior auditors, senior auditors, internal auditors, managers and partners. We note that over 63% of the respondents are managers and partners, and of these over 90% have an experience in auditing of more than 10 years. Also, more than 63% of the participants declared that net turnover of their client exceeds 500,000 Euros per year.

Figure 1. Answers to the question „In your audit office (audit activity) do you use specific software for audit?”

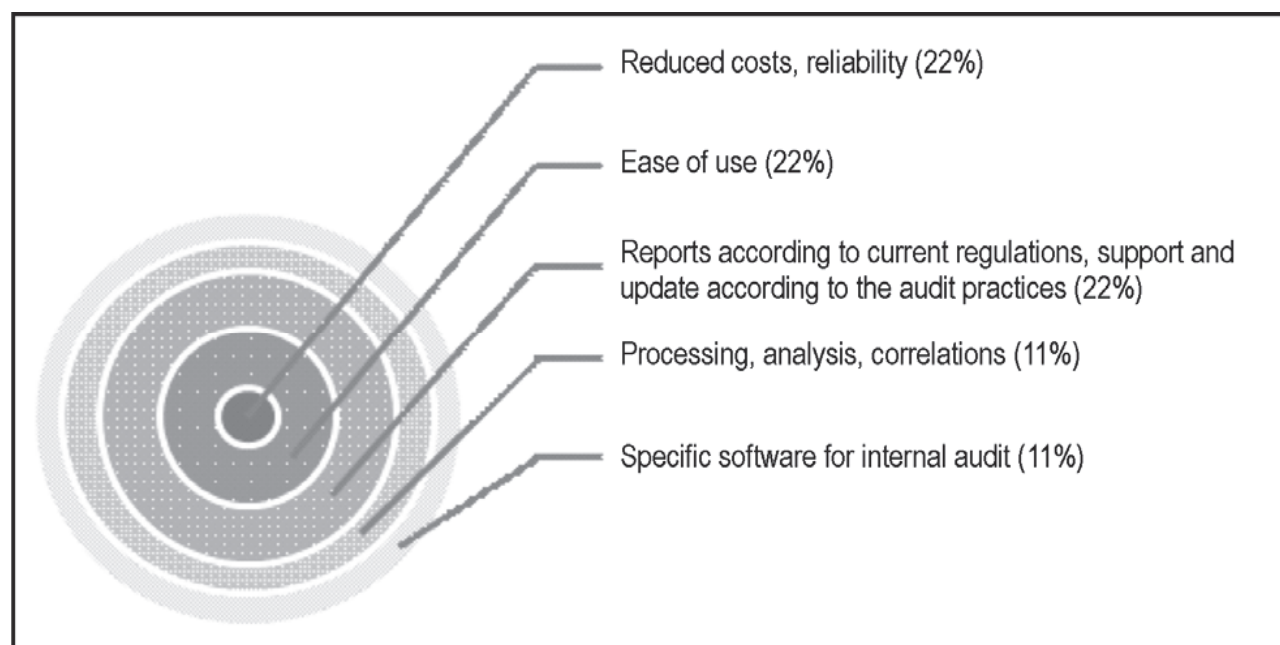


Source: Author's own projection

The first question of the questionnaire aimed for a response regarding the use by auditors in Romania of a software tool in the audit missions. As seen in **Figure 1**, about 74% of respondents declared that they use audit software.

The second question targeted those users which are searching for an audit software. Thus, we calculated a percentage of approximately 47% of the participants claiming that they are using an audit software but also are looking for an audit software to ensure ease of use, reduced costs and reliability, as shown in **Figure 2**.

Figure 2. Frequency of occurrence of factors tracked by respondents on the audit software



Source: Author's own projection

At this stage we noticed that of those who use audit software and want to use another one, some mentioned the will to try Gaudit and Caseware. A user's preference for Caseware was strengthened by the responses provided at two subsequent questions. Also, the same user declared that now he uses MS Office Excel as alternative.

It should also be noted that about 22% of the respondents use MS Office Excel but seek to purchase a new audit software that would provide support and update according to the audit practices, ease of use and correlations, analyses and templates. One of the respondents, being an internal auditor, seeks to purchase and to use a specific software for internal audit.

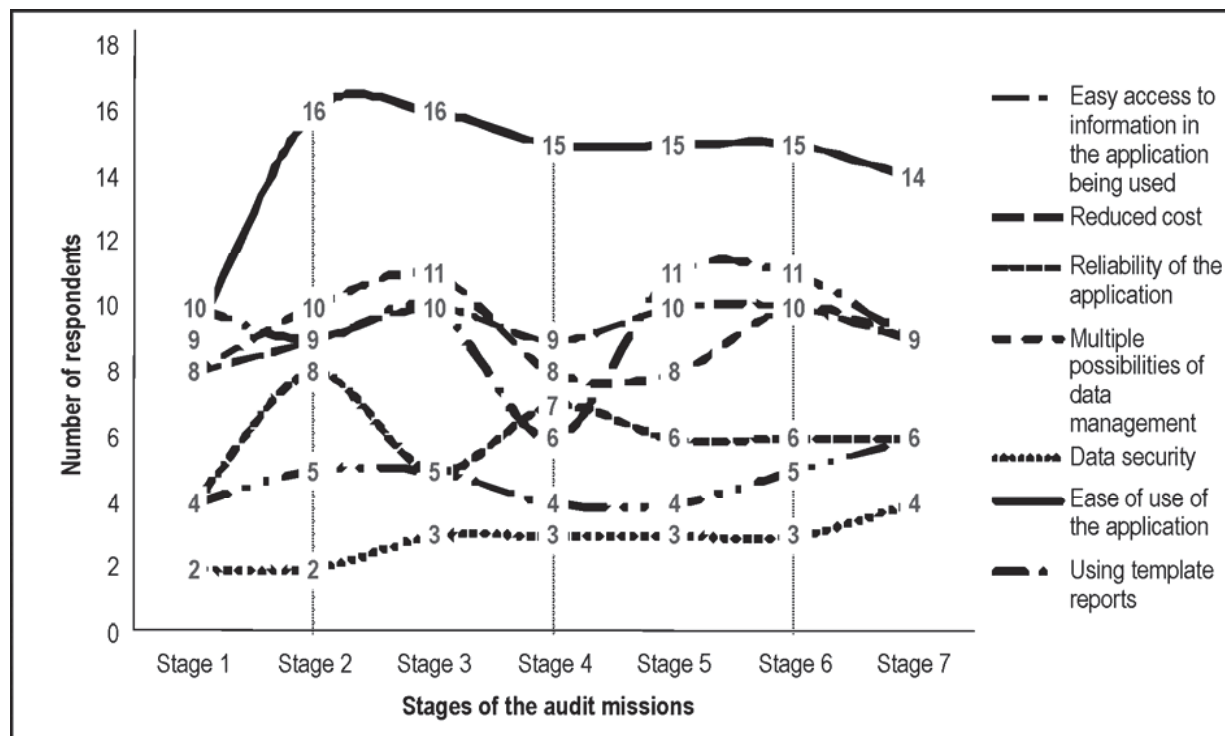
After these general questions the study continued with specific questions regarding the main stages of an audit assignment, therefore the respondents were required to mention for each stage of the audit engagement the application used: **client acceptance stage, analysis phase of the audit performed for the accepted client, reanalyzing stage of results in the audit performed for the**

accepted client, the sampling and resampling stage of the audit mission, preparatory phase for statistics of the audit mission, reanalyzing stage of results in the audit mission, completing stage in template format of audit documentation of the mission to facilitate it's online review (Alali & Pan, 2011), and also their strengths.

It should be stressed that the respondents had the option to mention any CAAT's they use, to point out the strengths they see in these applications. We used a list of seven categories of strengths (not limited only to these, which we defined in agreement with the specialized literature and studies from other countries), i.e.:

- Easy access to information in the application being used;
- Reduced cost;
- Reliability of the application;
- Multiple possibilities of data management;
- Data security;
- Ease of use of the application;
- Using template reports.

Figure 3. Strengths of the applications used for the stages of the audit engagement pointed out by auditors from Romania



Source: Author's own projection

In the chart in **Figure 3** we have the frequency of strengths for the software during the audit mission, i.e. the main qualities rated by the respondents from using the software tools, namely:

- Ease of use of data;
- Easy access to information in the application being used;
- Reduced cost;
- Multiple possibilities of data management.

It should be noted that the results of the questionnaire, as recorded in our study up to this moment, correspond to international trends in CAAT's as recorded by reviews developed by ITASA (IT Audit Self-Assessment), of the IT EUROSAI working group (European Organization of Supreme Audit Institutions). The study conducted by The National Audit Office of Finland was sent to 31 European Union member states, and received reply from 19 of them on various questions regarding the software

tools used in IT audit practice. Thereby referring to the use of CAAT's all SAI (Supreme audit Institutions) reported the use of at least one such tool, and the most used solutions reported were ACL- Audit Command Language and IDEA - Interactive Data Extraction & Analysis. (INTOIT, 2010)

Through the questionnaire we can say that in Romania the respondents use the applications: *MS Office Excel*, *Ciel Audit and Review*, *CaseWare Audit and Gaudit*, software solutions available in the Romanian market, considering that these applications have various strengths, as seen in Figure 3. Also, it has been observed that most of the Romanian auditors use the same software tool for each stage of the audits.

Besides the seven stages of the audit process, the respondents were asked about their experience in using different software tools in special audit engagements. Thus, at the question: „What software you use when performing a testing of 100% of the audited sample?” 17% of the respondents mentioned that they use Ciel

Audit and Review because of 5 strengths: multiple possibilities of data management, data security, ease of use of data, using template reports. For the software Gaudit 6% of the respondents mentioned the following 5 strengths: easy access to information in the application, reliability of the application, multiple possibilities of data management, ease of use of data, using template reports. Users of MS Excel – 77% from the total number of respondents – mentioned all 7 strengths: easy access to information, reduced cost, reliability of the application, multiple possibilities of data management, data security, ease of use of data, using template reports.

At the question: „What software for audit you use for identifying weaknesses which can lead to fraud?”, 17% of the respondents reported the use of Ciel Audit and Review which gives a number of 4 strengths, i.e.: multiple possibilities of data management, data security, ease of use of data, using template reports. Other 11% of the respondents reported the use of CaseWare Audit and consider that it gives 5 strengths, namely: easy access to information, reliability of data, multiple possibilities of data management, data security, using template reports. For the software Gaudit, used by 6% of the respondents it was noted a number of 5 strengths, namely: easy access to information, reliability of data, multiple possibilities of data management, ease of use of data, using template reports. And the users of MS Excel – 66% of the respondents - mentioned all 7 strengths.

At the question: „What software for audit you use to perform a continuous audit?” 17% of the respondents mentioned that they use Ciel Audit and Review for a number of 4 strengths: easy access to information, data security, ease of use of data, using template reports. 11% of the respondents reported the use of CaseWare Audit, mentioning 3 strengths provided by it, i.e.: easy access to information, multiple possibilities of data usage, using template reports. For the software Gaudit, used by 6% of the respondents, it was mentioned a number of 4 strengths, i.e.: easy access to information inside the application, reliability of data, multiple possibilities of data usage, ease of use of data. And the users of MS Excel – 66% – mentioned all 7 strengths.

The analysis presented discloses the use of MS Office Excel in the highest proportion by the respondents even for special situations (such as continuous audit). However, the research showed that this software solution is not adapted to ensure the methods and techniques specific for audit, nor to the national

legislation in audit. Some studies conducted in 2001 mentioned poor use of spreadsheets and other tools for automated calculation and now these techniques are widely used (Curtis & Payne, 2008). Nowadays auditors want more and more to find a solution which will comply with their need to complete the audit assignments with greater efficiency.

5. Conclusions and research limitations

On the background of phenomena with strong economic and social implications like digitization and economic crisis, we analyze the role of using software tools to increase efficiency of the audit assignments.

Previous studies showed that using CAAT's in an audit office can reduce the time and financial resources involved in the audit assignment (Fargason, 2001), and also the risks and help to attain a higher degree of providing the result. (Alali & Pan, 2011)

This study analyzed the responses from the users' point of view, considering their preferences to use a CAAT's in the stages of the audit, emphasizing the main qualities assessed by the respondents: ease of use of data; easy access to information in the application being used; reduced cost; multiple possibilities of data management.

The research showed that the vast majority of Romanian auditors use the same software tool in all stages of the audit missions conducted. Also, the majority of the respondents don't use software tools adapted to ensure the methods and techniques specific to the audit assignment and the national legislation for audit but they want to use solutions which will comply with the strengths highlighted in order to increase effectiveness of the audit assignments.

At the same time, through the study we observed the tendency for users to work with software tools also during special audit missions such as testing 100% of the audited sample or performing continuous audit.

Further studies may approach methods of testing auditors' decision to use some software tools, considering the variables declared by the respondents and their impact in the decision making pattern.

Also, a further study may analyze the way these CAAT's solutions adapt to technological changes, becoming available in web format accessible online which can be used from a tablet or smartphone.

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